UNISYS

December 2015

ClearPath Connection

A Quarterly Newsletter for Unisys ClearPath Clients

Contents

The ClearPath Program Takes its Next, Bold Step

By Brian Herkalo, Director, ClearPath Forward Product Management, Unisys

It's been an unbelievable year.

Like we do at the start of every year, we viewed 2015 as an opportunity to build upon the achievements of the past and steer the ClearPath® program in an exciting new direction. And when you take a look at everything we achieved over the last 12 months, it's safe to say that we more than delivered on this goal.

There were the releases of ClearPath MCP 17.0, ClearPath OS 2200 16.0, and ClearPath ePortal 6.1 – significant, mid-year updates to our core operating environments and mobility solution that brought a host of new features and innovative enhancements to the ClearPath user community.

This summer, we introduced the ClearPath Software Series. A suite of software-only deliverables – which includes ClearPath MCP Developer Studio, ClearPath MCP Developer Studio Personal Edition, and ClearPath MCP Express – the ClearPath Software Series dramatically redefines how clients are able to leverage the capabilities within the ClearPath environment.

And then we come to the ClearPath Dorado 8300 systems. Without a doubt our biggest achievement of the year, these systems represent the culmination of a strategy a decade in the making. By building them on an all Intel® foundation that delivers performance and capabilities unseen in any Dorado model to date – including those built on proprietary processor technology – we surpassed the goals established in the ClearPath Next-Generation Server Architecture Strategy. **>>**

ClearPath Channel Over 120 Videos Online! You**Tube**

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Today, all ClearPath Libra and Dorado systems are Intel® based and leverage the fabric architecture – a shift that positions them to serve as central components of tomorrow's hybrid-IT, software-defined data centers.

And with the release of our latest innovation, we're one step closer to turning this into a reality.

Say hello to ClearPath Forward™.

The Best of Both Worlds

What we had up until this point referred to as "the fabric" will now be known as ClearPath Forward. But this is far more than a simple name change.

In a move designed to blend established ClearPath strengths and new innovations with the engineering ingenuity behind the *Forward!* by Unisys™ enterprise computing platform, ClearPath Forward extends the capabilities of the fabric-based infrastructure with a suite of new features that adds immense value to clients' ClearPath environments.

Secure Fabrics

One of the primary goals we set out to achieve with ClearPath Forward was to give clients a foundation on which to build and implement a high-performance enterprise application environment capable of easily sharing data – in real-time – between ClearPath systems and standard technology for better agility, responsiveness, and time to value.

To support this goal, we've made the ability to build multiple secure fabrics within the ClearPath Forward environment a cornerstone of the release. Secure fabrics allow you to segment and isolate traffic over the environment's internal high-speed interconnect and develop secure, dedicated data lanes, helping you subdivide quality of service and realize predictable, secure communication for virtualized and partitioned workloads alike.

In addition, the secure fabrics validate and authenticate end points using an out-of-band connection, so you can protect network communications while avoiding the susceptibility to VLAN hopping attacks created by other approaches. And with native RDMA support, ClearPath Forward helps you accelerate throughput without straining CPU memory.

Plus, the new corporate LAN gateway functionality unifies your network investment by making it possible for the high-speed interconnects that link the secure fabrics within the ClearPath Forward infrastructure to integrate with your data center's existing Ethernet backbones. **>>**

And by increasing the capabilities available in the Unisys Data Exchange product, you can now post transactional data in near real time from ClearPath MCP and ClearPath OS 2200 databases to Microsoft® SQL Server®, making it easier to support business process integration, reporting, business intelligence, and big data analytics.

In addition, the Application Integration Services product now enables .NET developers to include ClearPath transactions and functions in their applications using standard .NET tools.

Beyond Virtualization

To help clients streamline their virtual environments and further increase workload density, ClearPath Forward includes a plug-in that integrates with VMware® vCenter™ and enables you to provision Microsoft Windows® and Linux® partitions directly from vCenter for a streamlined, single-pane-of-glass management and user experience. You also have the ability to view the status of these partitions right in the vCenter portal, helping you unify management across environments.

Support for technology from Docker, Inc. further simplifies the implementation and management of virtual Windows and Linux environments. This technology utilizes a single operating environment to deploy multiple virtualized workloads, enabling you to load a greater number onto a physical host.

As a result, you can reduce system overhead while delivering increased performance and greater workload density. Docker containers also make application workloads portable between hosts or servers, further simplifying application management.

Greater Flexibility

In addition to delivering increased control, greater predictability, and simplified management, ClearPath Forward significantly expands on the high levels of flexibility already available in the ClearPath environment.

Aside from your host MCP or OS 2200 environments, you now have the option to divide each Enterprise Partitionable Platform (EPP) within a ClearPath Forward system into a maximum of 36 unique environments – all of which can be dedicated to a variety of Windows or Linux workloads, creating numerous opportunities for advanced integration.

Increasing the number of partitions available within ClearPath Forward also gives you more ways to utilize the deliverables offered under the ClearPath Software Series umbrella. For instance, you could deploy multiple instances of ClearPath MCP Developer Studio and use these unique development environments to stage different MCP releases, test application updates, or provide individual development resources to your team – all without investing in additional hardware. **>>**

Redefining the Mainframe

The launch of ClearPath Forward would have been impossible if weren't for the tremendous strides we made over the last several years. Evolving ClearPath systems away from proprietary chipsets and toward an industry-standard, all Intel® foundation laid the groundwork that eventually allowed us to unify the fabric infrastructure.

With ClearPath Forward, we've set the stage for a new dimension of possibilities – and in doing so, have actively redefined what it means to be "a mainframe." Specifically, ClearPath Forward makes ClearPath systems much more open, active participants in today's data center environments.

They're hubs of integration that pull together and connect unique workloads within a single system. They help to bridge the gap between virtualized environments. And they make application development a simpler, more cost-efficient process.

But, they do all of this without losing sight of the characteristics that have long helped ClearPath systems stand out among the mainframe crowd. Long-established, industry-recognized security, resilience, and availability remain paramount in the ClearPath Forward era. And by uniting these qualities with new innovations, we've created a platform that's purpose built to remain a centerpiece of your IT strategies for years to come.

Turning Data Exchange Into a Two-Way Street

With <u>Unisys Data Exchange</u>, our recently released data integration solution, you can perform selective and near-real-time data replication and transformation from a source data store to one or more target data stores. This makes it easy to facilitate timely access to data for business process integration and acquire the information needed to support reporting, business intelligence, or big data analytics activities.

And, coming in early 2016, we'll be introducing a new release of the software that turns Data Exchange into a "two way street," making it even simpler for ClearPath MCP shops to access, replicate, and transform their data.

While it was always possible to propagate data from an Enterprise Database Server for ClearPath MCP (DMSII) database to a Microsoft SQL Server data store, this update will make the reverse possible: For the first time, you'll have the ability to propagate data from a SQL Server data store to a DMSII database. As a result, your MCP applications will be able to leverage data from SQL Server data sources, providing tighter business process integration.

Please contact your Unisys sales representative for additional information about Data Exchange. And to learn more, visit our <u>web site</u> and check out the <u>Data Exchange video on YouTube</u>.

Exciting Eclipse News!

We've been hard at work updating the Eclipse integration in the ClearPath MCP and OS 2200 operating environments and are happy to announce substantial, exciting enhancements to the ClearPath OS 2200 IDE for Eclipse™ and ClearPath MCP IDE for Eclipse™ products.

Updates to the ClearPath OS 2200 IDE for Eclipse

Updates and enhancements added to the **ClearPath OS 2200 IDE for Eclipse version 4.4.1** include:

- **Create or delete a qualifier, program or data file, folder, or element from the OS 2200 File Explorer:** Without leaving the Eclipse IDE, you now have the ability to easily create or delete a qualifier, program or data file, folder, or element from the OS 2200 File Explorer.

- **Drag and drop or copy and paste elements:** This feature provides the flexibility to easily copy and paste an element or elements from:
  - An OS 2200 program file to another program file
  - A local file system to an OS 2200 file system
  - An OS 2200 file system to a local file system

- **Clear cache:** This feature deletes all unreferenced elements that may have been previously included in a project. By default, it clears these elements from the cache on the first of every month, though you can freely reschedule to a more convenient time. Note that this feature runs in the background without impacting your ability to use the Eclipse IDE.

- **Validate telnet credentials:** You can use this feature to confirm if the entered telnet credentials are valid at the time of telnet configuration.

- **Flexible build stream:** With the help of this feature, you can alter the default build stream by loading a build stream from a local file system or modifying an existing build stream during the build process.

- **Saving search results:** You now have the ability to easily save all, or a select portion of, the results in the OS 2200 Search view to a file.

Please visit our web site to learn more about the ClearPath OS 2200 IDE for Eclipse version 4.4.1. And if you'd like to download the IDE, you can do so here.

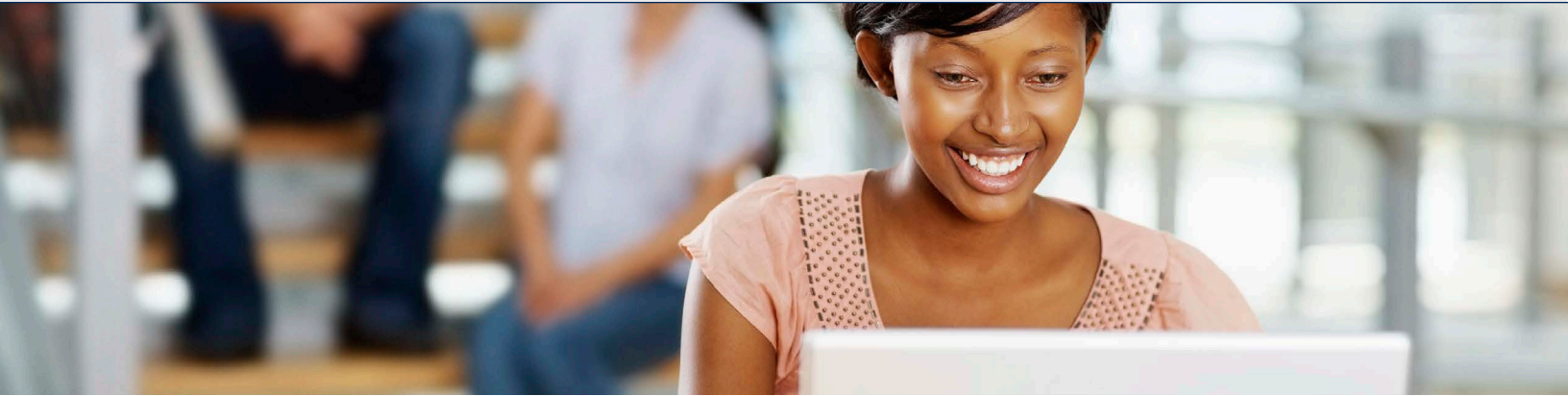## Updates to the ClearPath MCP IDE for Eclipse

New features for the **ClearPath MCP IDE for Eclipse version 4.4** include:

- **MCP File Search:** The MCP File Search makes it easy to locate a search string by giving you the freedom to define the scope of a search in several ways. For example, you can search all opened files associated with an MCP project, the files and MCP projects selected in the MCP Explorer view, or all projects in the workspace. You also have the ability to save the MCP Search results to a text file so that you can use the information for sharing or further reference, as needed. **>>**

- **Suppress save and re-sequence dialog box:** If you configure the MCP Eclipse IDE to save a file automatically after editing, it will no longer ask you to save the file before performing a build. Instead, it automatically saves and initiates the build. Similarly, if a file requires re-sequencing, the MCP Eclipse IDE automatically performs this action without any additional prompts.

- **COBOL field size:** With this new functionality, you can quickly and automatically calculate the size of selected COBOL fields, helping you easily determine the size of elementary variables or a group of items.

Please visit our web site to learn more about these and other features included in the ClearPath MCP IDE for Eclipse version 4.4. And if you'd like to download the IDE, you can do so here.

MCP Express Is Here!

We are pleased to announce the availability of MCP Express!

The newest deliverable under the ClearPath Software Series umbrella, MCP Express offers a totally new way for students, teachers, hobbyists, and ClearPath enthusiasts to interact with the MCP operating environment.
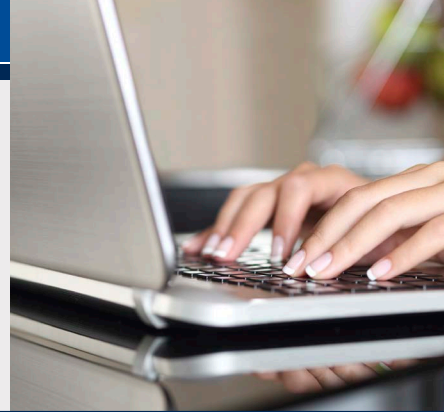
Designed primarily for educational and leisure purposes – though it's also ideal for existing ClearPath clients to use in self-study, learning, or training activities – MCP Express is a free download that allows individuals studying or interested in operating systems and software development to immerse themselves in the MCP development environment. They can use it to learn new techniques, follow along as an instructor demonstrates an important concept, or explore the environment during leisure time.

Available as a free download, the MCP Express package includes the ClearPath MCP operating system, a comprehensive set of MCP development tools and compilers, and selected MCP runtime software to facilitate testing.

Please note that each version of MCP Express is licensed to one user for non-production and non-commercial purposes only, and is built to run on Windows PCs or laptops that meet specific technical parameters.

Ready to get started? Download MCP Express today!

ClearPath Application Integration Services – Now With More Integration

We designed the ClearPath Application Integration Services (AIS) product to work in concert with the Microsoft .NET Framework and Microsoft Visual Studio®, so you can build a unified development environment that makes creating cross-platform applications an easy, intuitive process.

By blending contemporary development techniques with such core ClearPath Forward attributes as security, reliability, and performance, AIS simplifies life for ClearPath and non ClearPath developers alike. This makes it possible to work with a wider pool of talent – without creating the potential for development roadblocks between MCP or OS 2200 and Windows environments.

And with the recent updates we've added into AIS, MCP and OS 2200 developers should find it even easier to create robust, cross-platform applications that help the businesses they support respond to rapidly changing demands and stand apart from the competition.

.NET Enhancements

We've updated AIS to allow .NET applications to call ALGOL, NEWP, and COBOL85 libraries, as well as COMS transactions, within the MCP environment.

Likewise, .NET applications can now execute TIP transactions and control statements in a batch run in the OS 2200 environment.

AIS also includes a new API that simplifies the process of accessing OS 2200 directories, subdirectories, and files, and includes an option to recursively locate information for file system elements in all subdirectories.

Additional APIs enable you to:
- Use new classes in a .NET application to perform various OS 2200 FURPUR operations on mass-storage files
- Retrieve the last modified time of a file
- Retrieve a list of file types included in a directory

With the help of these updates, .NET developers now have the ability to write applications that access and include ClearPath Forward information and resources – such as client shipping addresses – while continuing to work in a comfortable, familiar environment.
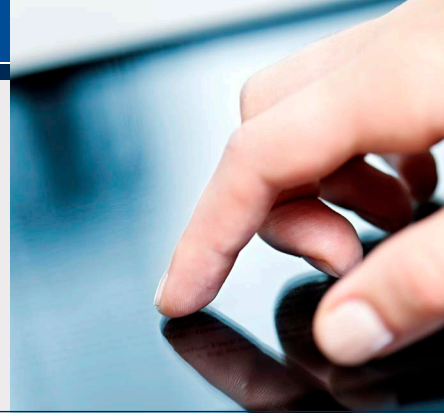
MCP AIS Java Applications

In the MCP environment, AIS integrates with Unisys value-added features currently included in the Virtual Machine for the Java™ Platform on ClearPath MCP, such as Unisys specific classes for system services and the Java Native Interface (JNI), which supports application integration.

MCP AIS Java Applications (AISJA) give you the ability to choose any commercial off-the-shelf (COTS) 64-Bit Java virtual machine for the Windows operating system and use it to build and deploy Java-based applications that access MCP files and system services.

Please contact your Unisys sales representative to learn more about these enhancements and the many other ways AIS can benefit your business.

Resources

The list below contains quick links that will help you stay up to date on all things ClearPath.

- ClearPath homepage
- Agile Business Suite homepage
- Business Information Server (BIS) homepage
- ClearPath & Innovation Blog
- ClearPath How-To Videos on YouTube
- ClearPath Libra/MCP Webinars
- ClearPath Dorado/OS 2200 Webinars
- eBook: Built for Today, Ready for Tomorrow: Unisys ClearPath Systems
- eBook: Understanding the Economics of ClearPath Systems
- eBook: How to Shift Your IT Focus from Administration to Innovation
- eBook: The Power of Innovation: Fabric-Based ClearPath Systems in Action (**NEW**)
- Video Playlist: ClearPath OS 2200 Release 16.0 Technical Update (**23 Videos**)

- ClearPath Customer Education Homepage
    - Guide: ClearPath OS 2200 Course Catalog
    - Guide: ClearPath MCP Course Catalog
    - Guide: ClearPath OS 2200 and MCP Specialty Partitions Course Catalog
    - Guide: Agile Business Suite Course Catalog
- Newsletter: Developing *Agility* October 2015
- Newsletter: ClearPath Connection September 2015
- White Paper: ClearPath Middleware Strategy and Products for OS 2200 Systems
- White Paper: ClearPath Middleware Strategy and Products for MCP Systems